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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,771	12/20/2001	Kenji Otsuka	217364US3X	6898

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EXAMINER


ZERVIGON, RUDY

ART UNIT PAPER NUMBER

1763

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/022,771	Applicant(s) OTSUKA ET AL.	
	Examiner Rudy Zervigon	Art Unit 1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,5 and 9-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,5 and 9-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 3, 5, 9, 11, are rejected under 35 U.S.C. 103(a) as being unpatentable over Holst, Mark et al (U.S.Pat. 5,955,037) in view of Malcolm, David H. (US 4,541,844 A). Holst teaches:
 - i. A cleaning apparatus of the “wet electrostatic precipitator” scrubber type (917; Figure 12; column 19, line 31 - column 20, line 65; column 22, lines 35-40) for cleaning exhaust gas (907; Figure 12) coming from a production apparatus (901; Figure 12), wherein an electroconductive corrosion-resistant material (steel; column 14, lines 43-49) is used as the constructional material for introduction piping, as claimed by claim 3. Applicant’s claim requirement of a production apparatus “for producing a gallium nitride film semiconductor by subjecting gallium chloride gas as a gallium source which is generated through the circulation of hydrogen chloride gas over metallic gallium to vapor phase deposition through the reaction with ammonia so as to form a gallium nitride film” are requirements of intended use of the claimed “production apparatus”. Further, it has been held that claim language that simply specifies an intended use or field of use for the invention generally will not limit the scope of a claim (Walter , 618 F.2d at 769, 205 USPQ at 409; MPEP 2106). Additionally, in apparatus claims, intended use must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim (In re Casey, 152 USPQ 235 (CCPA 1967); In re Otto , 136 USPQ 458, 459 (CCPA 1963); MPEP2111.02).

Art Unit: 1763

- ii. The cleaning apparatus according to claim 3, wherein the cleaning apparatus is a wet absorptive cleaning apparatus, as claimed by claim 5
- iii. The cleaning apparatus according to claim 3, wherein the cleaning apparatus is wet absorptive, as claimed by claim 9
- iv. The cleaning apparatus according to claim 3, wherein the electroconductive corrosion-resistant material is selected from the group consisting of stainless steel (steel; column 14, lines 43-49), and high nickel steel, as claimed by claim 11

Holst does not teach that the introduction piping is electrically grounded, or that Holst's steel is "stainless".

Malcolm teaches a wet electrostatic precipitator grounded scrubber (Figure 3) that treats flue gasses (column 6, line 43 – column 7; line 23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to ground Holst's scrubber as taught by Malcolm and to use stainless steel in place of steel as taught by Holst (column 27, lines 10-14).

Motivation to ground Holst's scrubber as taught by Malcolm and to use stainless steel in place of steel as taught by Holst is for creating charged droplets that impart "highly efficient particle collision and collection" as taught by Malcolm (column 4; lines 50-63) and for providing an alternate and equivalent material of construction.

3. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holst, Mark et al (U.S.Pat. 5,955,037) and Malcolm, David H. (US 4,541,844 A) in view of Skelley, Arthur P. et al. (US 5,206,002 A). Holst and Malcolm are discussed above. Holst and Malcolm do not teach

Art Unit: 1763

detecting means for sampling exhaust gas circulating in the cleaning apparatus and detecting oxygen or measuring a concentration of oxygen therein as claimed by claim 10.

Support for this portion of claim 10 is found the specification first paragraph page 15. Specifically, the specification teaches “in addition to the use of an oxygen detector or an oxygen concentration meter”. Skelley teaches an oxygen detector (110; Figure 1, 3; column 8; lines 1-25) affixed flue line of a gas scrubber 90; Figure 1. As such, Skelley teaches an equivalent apparatus that performs the function of oxygen detection. As a result, Skelley’s prior art element 110 performs the identical function of oxygen detection in substantially the same way, and produces substantially the same results as the corresponding elements disclosed in the specification (MPEP 2183).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Skelley’s oxygen detector to Holst’s and Malcolm’s effluent treatment as taught by Skelley.

Motivation to add Skelley’s oxygen detector to Holst’s and Malcolm’s effluent treatment as taught by Skelley is for imparting control logic based on effluent gas composition as taught by both Holst (column 3; line 63 – column 4, line 8) and Skelley (column 8; lines 1-25).

4. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holst, Mark et al (U.S.Pat. 5,955,037) and Malcolm, David H. (US 4,541,844 A) in view of Otomura et al (JP 62218966 A). Holst and Malcolm are discussed above. Holst and Malcolm do not teach an anticorrosive material resin coating with specific volume resistivities of approximately 100 Ωcm , at most $10^9\Omega\text{cm}$, and $10^7\Omega\text{cm}$.

Art Unit: 1763

Otomura teaches an alloy layer under an anticorrosive material resin coating with specific volume resistivities of between $10^4\Omega\text{cm}$ to $10^{12}\Omega\text{cm}$ (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add Otomura's resin coating with specific volume resistivities of between $10^4\Omega\text{cm}$ to $10^{12}\Omega\text{cm}$ (abstract) to Holst and Malcolm's scrubber processing surfaces.

Motivation to add Otomura's resin coating with specific volume resistivities of between $10^4\Omega\text{cm}$ to $10^{12}\Omega\text{cm}$ (abstract) to Holst and Malcolm's scrubber processing surfaces is for enhancing electrical and mechanical durability of the protected surfaces as taught by Otomura (abstract).

Response to Arguments

5. Applicant's arguments with respect to claims 3 and 5 have been considered but are moot in view of the new grounds of rejection.

Art Unit: 1763

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Rudy Zervigon whose telephone number is (571) 272.1442. The examiner can normally be reached on a Monday through Thursday schedule from 8am through 7pm. The official fax phone number for the 1763 art unit is (703) 872-9306. Any Inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Chemical and Materials Engineering art unit receptionist at (571) 272-1700. If the examiner can not be reached please contact the examiner's supervisor, Gregory L. Mills, at (571) 272-1439.

Rudy Zervigon
9/12/4